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Some Questions Concerning Modern Defense

by

Major-General V. Petrenko

From the moment that nuclear weapons appeared, military-theoretical thought has been persistently searching for the answer to the question: what is the role of defense in modern armed combat? During this search three fundamentally different approaches to the solution of the problem of defense have been revealed.

The advocates of one of them deny the existence of defense as a form of combat operations in a nuclear/missile war. Others allow the possibility of using defense only at the tactical level, denying that it is an operational category, but they assert that even at the tactical level defense may have a place only during friendly offensive operations. The advocates of the third approach (they are clearly the majority) recognize defense as one of the most important and natural types of combat operations on any scale, but differ in their views on the methods of its structure and conduct.

We too think that defense in a nuclear/missile war remains as a necessary type of combat operation. It is used where, because of various reasons, an offensive is not possible or advisable. As before, defense is organized and conducted by limited forces and means against numerically superior enemy forces. However, the goal, organization and methods of conducting defense in a modern war are fundamentally different from what they were in past wars.

The basic factors that determine the trends to develop defense as a type of combat operations are: the use of qualitatively new means of armed combat, especially nuclear/missile weapons; the maneuvering nature of armed combat,

conducting combat operations along axes without a continuous front; the increased power and the determining role of fire in combat operations; the increased capabilities of ground troops, the basis of which are the missile troops and tanks, and the widescale use of airborne landings; the changed methods of organizing and conducting an offensive by our probable enemies.

An analysis of these factors shows that progressive trends in development are inherent in defense in a nuclear/missile war.

One of the important trends in the development of defense is the steady increase in the determination of the goals of defensive operations while decreasing the time to achieve them. Nuclear/missile weapons permit maneuver by fire at great distances while still permitting the quick and reliable destruction of the nuclear means and the strike groupings of the enemy; modern reconnaissance means are capable of detecting means of nuclear attack and enemy troop groupings at a considerable depth, which permit the defenders to destroy them even before they approach the field of battle and engagement; the complete motorization of troops has increased their mobility and maneuverability on the field of battle and engagement. All this permits modern defense to be assigned the goal - - to disrupt the enemy offensive which is being prepared or which has already started.

Today, not only the troops directly opposite the enemy participate in the destruction of his offensive groupings, but also those troops located tens and hundreds of kilometers from the field of battle and engagement; and with their missile weapons and aviation, these troops can come to the assistance of the troops under attack in a short period of time. Therefore, the disruption of the enemy offensive must be declared the main goal of defending troop operations. The losses they inflict on the attacker must be such that the correlation of strength changes in favor of the defense, because only in this way is it possible to create conditions that are advantageous for passing from defensive to offensive

operations. The requirement to disrupt the offensive evidences the role and might of modern fire, the capability of nuclear weapons to destroy quickly, almost instantaneously, subunits, units and, in massed employment, entire groupings, and in this way change the correlation of forces, not by increasing the number and massing of friendly troops, but by quickly decreasing the forces of the opposing enemy. The goal of disrupting the enemy offensive gives a clear requirement to the troops directly engaged in carrying out defensive operations - - to create advantageous conditions for passing to the offensive for themselves, and not only for the troops that will come up from the depth or that are located nearby.

At the present time, everyone admits the need to organize defense at any level in an extremely short time, but as yet there is no single opinion concerning the question of the distinction between a prepared and a hastily assumed defense. Many still continue to define a hastily assumed defense with the indicators that had been set up in the 1948 Field Service Regulations, where it stated that this defense is distinguished by incomplete readiness, resulting in decreased stability, inadequately developed and weakly organized system of fire, hastily organized coordination, and unstable control. Under conditions of the extreme dynamics of armed combat, the rapidity of combat operations and abrupt changes in the situation, when the enemy is organizing an offensive from the march, i.e., in the process of moving up troops to the defense, this definition of defense as being created in a short time is not only wrong, but is even harmful. We cannot, and must not, form a poor defense, in which the system of fire and coordination is organized hastily, in just any way, in which control is unstable, etc. Even though the defense is created in a short time, it must be stable and vigorous, based on planned and organized fire of all types of weapons, on close coordination of all forces and weapons, and on firm control.

The only characteristic that distinguishes a so-called prepared defense from one organized in a short period is

the degree of its engineer preparation and its saturation with various types of obstacles. All the remaining indicators must be the same, both for the defense prepared in advance and for a defense created in a short time. We have all the capabilities for this - - both the reconnaissance means and means of destruction. When quickly going over to the defense during combat operations, it is necessary to know the situation in the zone of friendly troops as well as in the zones of adjacent troops; therefore, the process of working out and making decisions for defense will, first of all, basically consist of entering the necessary changes and additions into the decisions made previously for the operation or battle. From the sum total of problems in the estimate of the situation, the commanding officer will have to select those which will be the main and decisive ones in a specific given situation; and he and his staff should concentrate their attention specifically on them. The high mobility of troops, the great range of modern combat means, the highly efficient engineer excavating equipment, and the effective means for setting up mines and other barriers - - all this helps in the organization of a stable defense in a short time.

An important trend in the development of modern defense is the ever-increasing need for troops to resolve their defensive tasks by aggressive maneuvering operations, and not by the passive repulsion of enemy strikes from the standstill. This trend made its appearance in the second half of World War I and increased significantly in World War II. But in the past, positional forms of defense prevailed; and while maneuver by forces, weapons and fire was considered important, it nevertheless played a subordinate role. This was explained mainly by the inadequate mobility of troops and by the weak destructive power and insignificant range of the means of fire.

Under modern conditions, the trend toward increasing the role and significance of maneuver in defense has increased to such an extent that positional defense has lost its definite place and, in essence, has become a means of

supporting maneuver. In a nuclear/missile war maneuver will undoubtedly prevail on the field of battle and engagement. But this does not mean that positional defense has completely lost its significance. In order to inflict destruction on an enemy advancing in dispersed formations along separate axes and at high speeds, it is still necessary, in defending separate important areas of terrain, to combine positional stability closely with the broadest maneuver by fire strikes and by troops on the threatened axes.

As a rule, the defender is weaker than the attacker in forces and in means. But he has a number of advantages in his favor, which, even in a nuclear war, to a certain extent compensate for the lack of forces and means and enable him to carry out successful combat operations against a numerically superior enemy. The very presence of known advantages of defense over an offensive justifies its employment as a form of combat operation. If the main advantage of an offensive is initiative in operations and the right to select the time and direction of the strike, then the main advantage of defense is the right to select the place and position for the battle and the area for the engagement. In defense, it is possible to make more effective use of the protective characteristics of the terrain; to utilize camouflage more successfully to conceal the true objectives and to reveal the false ones, thereby causing the attacker to waste his ammunition by delivering fire strikes against empty places and secondary objectives; to study the terrain better, which facilitates maneuver by forces and means and permits the preparation of firing data; and to increase the accuracy of fire. Terrain is always on the side of the defense, and its skilful use may, to a significant degree, compensate for the lack of forces and means.

However, despite all the importance of utilizing the advantages of positional forms of combat, the retention of the terrain must still be subordinate to maneuver. This is explained by the fact that modern means of destruction, especially nuclear weapons, are so powerful and destructive

that no defensive position or zone, even the most reinforced and heavily saturated with troops and combat equipment, can withstand them. Since this is the case, the defenders will not be able to hold important areas of the terrain, much less inflict destruction on the attacking enemy, if maneuver in defense is made subordinate to positional defense.

The trend toward an increasing role in vigorous offensive operations by troops in fulfilling defensive missions is well summarized in the formula that says that positional stability and offensive strike force are essential to modern defense. In practice, this is reflected in the striving to allocate a considerable part of the troops to the second echelons and reserves and assign them vigorous missions connected with the maneuver.

Increasing the role of aggressiveness in defense is dependent on specific reasons, of which the main one is the utilization of nuclear/missile weapons and the increased role of fire as a whole.

Success in modern combat requires a high degree of coordination in the operations of long-range means and close-combat means and swift implementation of the results of fire by bold troop attacks following the fire strikes. A nuclear strike, the sudden employment of chemical weapons or massed fire with conventional ammunition, followed immediately by a strike of a small force of infantry and tanks, may lead to the complete destruction even of a numerically superior enemy. Therefore, the most effective method for carrying out a modern defense must become a powerful fire strike by all types of weapons, immediately concluded by a troop strike.

The next important trend in the development of modern defense consists of increasing the depth of its formation. This trend applies to the depth of combat and operational troop formations, to the depth of defensive areas and positions, and to the depth of vigorous action against the

enemy with the destructive means of the defense.

Since the appearance of the Field Service Regulations of 1959, the depth of combat and operational troop formations in defense has approximately doubled in size. The depth of a combat formation for a regiment increased from 4-6km to 8-10km; for a division, from 10-15km to 20-30km; and for a combined-arms army, from 50-70km to 100-120km. The depth of vigorous action against the enemy by defending ground troops using their own means has reached 200km and more for an army and 30km or more for a division. The factors that permitted an increase in the depth of the defense were the sharp increase in the range and destructive power of fire means and the equally sharp increase in the maneuvering capabilities of the ground troops.

Under modern conditions, the goal of increasing the depth of the defense is different from what it was in the past. It does not consist of bringing up fresh forces from the depth into battle in order to strengthen the combat formations of the troops of the first echelon, thereby increasing the efforts in the threatened axes in order to counteract the attacking groupings by passive repulsion of strikes for the purpose of stabilizing the situation. Instead, it consists of taking advantage of freedom of maneuver to utilize troops located in the depth of the defense, at the necessary moment and at the decisive place, to fulfil missions by vigorous offensive methods, i.e., to complete the rout of the enemy grouping immediately after the nuclear strikes. Considering the destructive force of modern combat means and the nature of an offensive, it is unquestionably necessary to have a significant part of the forces and means in the depth of the defense, which are also capable of fulfilling such missions as: the closing of dangerous breaches made by nuclear weapons in the combat formations of troops of the first echelon; the replacement of troops that have temporarily lost their combat effectiveness, destruction of enemy airborne landings; the defense of important areas and objectives in the depth, etc. But, we repeat, the main mission of the second echelons,

especially at the level of the army and front, must be the completion of the rout of the enemy grouping immediately after a powerful nuclear strike.

In connection with this, the fundamental change in the role and nature of the missions fulfilled by the basic elements of the combat and operational troop formation -- by echelons and combined-arms reserves -- may be considered to be a fully defined trend in the development of modern combat. The first echelon of the operational and combat formation will not always play the decisive role in repelling an enemy offensive. Furthermore, there are reasons to assert that the leading role in the resolution of this mission will most frequently belong to the nuclear/missile weapons and troops located in the depth, and the troops of the first echelon will only provide advantageous conditions for delivering nuclear strikes and for carrying out broad maneuver by the combined-arms reserves for the purpose of completing the rout of the enemy. All this inevitably leads to a striving to decrease the composition of the first echelons and to assign a large and the most mobile part of the forces and means to the second echelons.

The missions of these elements of troop formation are also undergoing serious changes. During World War II, second echelons were assigned two typical missions: to carry out counterstrikes and counterattacks; and to hold tenaciously definite zones and positions in the depth on the probable axes of the main enemy strike. In accordance with this, the troops of the second echelons were assigned specific combat missions before the start of active defensive operations. As a rule, specific missions were not defined for the combined-arms reserve before the start of the enemy offensive; it was usually oriented as to the possible nature of the operations during the defensive battle and engagement.

A characteristic feature of a modern defensive operation is the steady increase in the depth of the simultaneous deployment of vigorous defensive operations on the axes of enemy strikes, and also the need to resolve various missions

not successively, one after the other, but simultaneously. The experience of many postwar exercises shows that active defensive operations quickly spread to an enormous depth. An example is the war game conducted by the Commander-in-Chief of the Ground Troops in February of this year, in which the active defensive operations of the front troops reached a depth of 200 to 250km; in this case the engagement was conducted simultaneously by troops of the first echelon and a considerable portion of the second echelon of the front. It was characteristic that, before the army which made up the second echelon of the front was committed into battle for the purpose of delivering a counterstrike, it was practically expended in carrying out missions which had not been anticipated: two of its divisions were thrown into combat with the operational "enemy" landing; and two other divisions had to enter into combat with tank large units that broke through into the depth.

The highly maneuvering nature of combat operations, and the abrupt changes in the situation that are inherent in them, require a new way of utilizing second echelons and reserves in a defensive operation and in combat.

In modern conditions troops located beyond the first echelon are assigned a multitude of various missions: to defend important areas in the depth; to execute a maneuver in threatened axes with the goal of stopping or destroying the enemy grouping that broke through; to deliver counterstrikes and carry out counterattacks; to close dangerous breaches in the defense of the first echelon or to replace the first echelon troops that temporarily lost their combat effectiveness as a result of enemy nuclear strikes; and to annihilate enemy airborne landings.

It is completely unrealistic to presuppose that these missions will be fulfilled successively, one after the other, or that it will be possible to determine beforehand, before the start of active defensive operations, which part of the forces and means of the second echelon should be brought in to fulfil this or that mission. It is more probable that the

majority of the indicated missions will have to be fulfilled simultaneously and that specific combat missions for the troops located in the depth will have to be defined during the engagement as it develops.

When making a decision for defense by the large units and units which make up the second echelon, the above circumstances require that not only the main mission be indicated, but also the secondary missions which they must be prepared to carry out during defensive operations. Multifariousness in the use of second echelon troops -- is an essential condition in the planning of a modern defensive operation and battle. In order to achieve a high degree of readiness of second echelon troops for the fulfillment of any of the missions that arise during defensive operations, they must be able to maneuver freely; and to do this they must be located at the greatest possible distance from the lines of contact with the enemy. Taking into consideration that the width of a large unit defensive front may reach 20 to 30km. or more, and that that of an army may reach 200km, it is advisable to locate their second echelons correspondingly at a distance of 15 to 20km and 50 to 70km. from the main line of defense.

Regardless of their intended use, the troops allocated in the depth (second echelons and reserves) should be located in those areas of the terrain where, according to the concept of the battle and operation, they are expected to hold the ground tenaciously. Each disposition area of units and large units that are part of the second echelon composition must also simultaneously be their defensive area.

There has long been a need to examine the questions of dividing troops into echelons and combined-arms reserves and to define their role and place in an operational and combat formation, as well as their most typical missions. Sometimes it is difficult to explain why in some cases a large unit that is allocated to the depth of a defense is called the second echelon, and in another case the reserve, because in both cases their missions are usually formulated identically.

Probably it will be correct to establish that the combined-arms reserves are always allocated only in a front formation (frontovoye obyedineniye). In an army and division they are allocated only in a single echelon formation, which is explained by three main reasons: troops of the second echelon and combined-arms reserves of an army and division now fulfil similar missions; as a rule, a limited number of combined-arms large units is allocated for an army defensive operation; it is necessary to have a powerful second echelon in an army and division. Only in a front is it actually possible to have reserve large units intended for the strengthening of the army or for fulfilling missions that arise suddenly.

Reserve large units in a front may be formed from large units arriving from the zone of the interior, as well as from large units taken from the composition of armies for replacement. Naturally, both groups of large units will not have combat missions before being turned over to the armies or before being used for some purpose by the front.

At the present time, the trends in the development of modern defense which deal with the forms of its structure have also become clearly defined.

Before the mass use of nuclear/missile weapons and other modern means of destruction, the troops, when going over to the defense, strived to create a continuous front, not only at the level of subunits and units but also of large units and operational formations. The front of the battle was almost always concentrated in one direction. For the purpose of creating a single solid defense and better coordination between the large units, zones of definite sizes were formed for them. These zones and positions were formed according to a single plan of the senior commander, who indicated their location and outline on the terrain. As a result, a defense had the form of continuous defensive zones, divided into a series of continuous defensive positions which, in turn, were composed of a series of continuous fortifications and trenches. This form of defense corresponded

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to the conditions for conducting combat operations in the past war, where it fully justified itself.

In a future war the nature of combat operations will become completely different. Soviet military art is based on the fact that maneuvering forms of combat will predominate in a future war, that there probably will not be any continuous fronts, and that combat operations will develop along axes. Deep breakthroughs by troop groupings of both sides will eliminate the linear front of combat operations, and the mass use of nuclear weapons will predetermine the appearance of large gaps and breaks between large units and formations.

In these conditions, the divisions of the first echelon of the army, when going over to the defense, will not be located on one line, and the combat front for each division will be able to have a different axis. Each division will have to build its defense in a different manner. This means that the single continuous army defensive zone has already broken down into separate defensive areas and centers and has lost its former orderliness. Now the army defense will be characterized not by the orderly contour of solid defensive zones and positions, but by separate defensive areas, centers and positions unevenly dispersed along the front and over the entire depth of the army defense.

Thus, the evolution of the structural forms of defense leads to an intermittent-center (preryuchato-ochagovyy) system, based on the creation of defensive areas of different sizes and configurations that intersect the most important axes, with considerable gaps between defensive areas. This does not eliminate the possibility that, should the front be stabilized for a comparatively long time, separate defensive areas may be gradually combined, with the result that separate sectors of the front may become a single (divisional or army) continuous defensive zone. But naturally this takes time.

Modern defense must be based on a tight joining of

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maneuvering and positional forms, with maneuver, as we have already indicated, prevailing over stability. The main feature of defense is vigorousness. Positional forms of defense must serve only as an important means for ensuring the preparation and implementation of powerful fire strikes and a decisive troop maneuver designed to rout the strike groupings of the advancing enemy.

The basic structural form for modern defense at all levels must be considered to be dispersed areas which contain positions for combat and which ensure all-around defense, convenience for combat, and defense from enemy means of mass destruction. However, the intermittent-center system of defense must not be full of holes that permit the enemy to maneuver freely between the defensive areas. Although not continuous in its form, modern defense must nevertheless be monolithic. This means that defense is organized by separate areas, but tied into a single system, and that gaps are permitted when organizing defense between subunits, units and large units, but the size of the gaps must not destroy the integrity of the defense. The monolithic structure of defense and the coordination of troops operating on separate axes within their defensive areas are ensured not by close lateral contact but by the long range of fire means and the maneuvering capabilities of troops.

In general terms, these are the trends in the development of modern defense. Their analysis shows the need for a fundamentally new approach to the solution of a whole series of important questions of organizing and conducting modern defense. Some of these questions are examined below.

The principle of concentrating the basic efforts in defense and intensifying the resistance to the advancing enemy arose as a result of defensive counteraction to offensive methods, and is an expression of the art of defending troops and their skill in conducting successful combat operations against numerically superior enemy forces. In the past war, the highest art in concentrating the basic efforts consisted of the following: with an overall inequality in the forces

and means of both sides along the entire front, the defender achieved equality, or even superiority over the enemy in personnel and combat equipment in a selected position or zone.

In conditions of mass employment of nuclear/missile weapons, the main materiel basis for counteracting the attacking enemy cannot be considered to be personnel and conventional combat means. As is known, the basic means for combatting the attacking enemy now is nuclear/missile and chemical weapons, supplemented by the fire of conventional means. Therefore, the concentration of the basic efforts must not consist of having the defender select a certain position or zone ahead of time and concentrating his main forces and means there, or even, during the battle or engagement, of executing a maneuver of forces and means to these selected positions and zones in order to increase the number of troops there. Instead, it consists of having the defender foresee and carry out timely, powerful fire strikes with nuclear weapons, in combination with other means of destruction, against the nuclear means and the main grouping of troops of the advancing enemy; and then, with a strike by his own forces and without delay, implementing the results of the fire strikes with the goal of completing the rout of the advancing enemy on a definite axis. This is the very essence of concentrating basic efforts and intensifying resistance in modern defense.

Instead of selecting some one position in the defense of a division, or a zone in the defense of an army, the retention of which up to now required the concentration of their basic efforts, it is now necessary to select areas of terrain in which it is most advantageous to destroy the advancing enemy grouping with massed fire strikes in combination with troop strikes. It is expedient to call these areas <u>fire destruction areas</u> (rayon ognevogo porazheniya).

It is necessary to select fire destruction areas both in front of the main line of defense within the range limits of the defender's fire means and in the depth of defense of his own troops. Within the limits of these areas, strikes

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by nuclear weapons and aviation, fire by other means of destruction, and troop strikes are planned with the goal of completing the rout of a predetermined enemy grouping.

In order to create advantageous conditions for delivering concentrated fire strikes and troop strikes, it is essential to select advantageous areas of terrain which are to be held tenaciously. Usually they will be located on the probable axes of the enemy offensive, both within the limits of the main line of resistance and in the depth. For the defense of these areas the minimum necessary number of troops is allotted. With the use of the organized fire of all means, barriers and other positional advantages, these troops have to delay the advancing enemy, compel him to concentrate in an area of terrain that is advantageous to the defender, and in this way create conditions for delivering an effective fire strike and troop strike against the enemy.

A fundamentally new approach to the methods of concentrating efforts and intensifying resistance in defense must inevitably produce new content in the concept of defense and in the bases for decisions by the commanding officer for its organization and execution.

In modern conditions the basis of the commanding officer's concept for defense must include the definition of: the axes of probable enemy strikes and his grouping against which it is necessary to concentrate the basic efforts of one's own troops; the areas of terrain that it is necessary to hold at any cost; groupings of one's own forces and means and the nature of their maneuver during defensive operations.

Such content of the concept permits a decision to be made on the organization and execution of defense, taking into consideration: the decisive role of fire, the basis of which consists of nuclear strikes; the conduct of combat on axes, one of which will always be the main one; the requirements for antinuclear protection, ensured by dispersing and locating forces and means on a front which is not continous; and the need to carry out the broadest maneuver by

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fire, forces and means during the defensive battle.

The presence of missile units and subunits in the composition of the army and division, the considerable decrease in number of tube artillery on carriages, the introduction of antitank guided missiles into the troops and improved antitank grenade launchers, the conversion of transports from means of transport into combat vehicles, and a whole series of other changes in the armament of troops, require considerable changes in the structure of troops for defense.

The saturation of motorized rifle subunits with antitank guided missiles (PTURS) and improved grenade launchers permit them to organize a firm antitank defense in their own areas with their organic means. Therefore, now there is no such need as before to reinforce them with tanks from the tank battalion of the motorized rifle regiment. When used in a centralized manner, a tank battalion is a powerful means of maneuver on threatened axes; it permits the creation of a deeply echeloned antitank defense. It is evident that there is no longer any need to create such an element as the antitank reserve in the combat formation of a regiment. With modern means of combat, each platoon strong point and the defense area of a company, regiment, and division can, and must, be based on antitank fire in combination with antitank barriers of all types. Therefore, there is now no sense in creating company antitank strong points, battalion antitank centers, and regimental, divisional and army antitank areas by the special allotment of means.

It is generally recognized that in modern conditions there is no opportunity, or even any need, to create artillery groups in an army and division. In our view, this should not be done even in a regiment, if the commanding officer of the regiment has less than two artillery battalions at his disposal.

At the same time we consider, that it is absolutely essential that a regiment have a mobile obstacle detachment

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and that the division and army have not less than two such detachments. This is dictated by the broad front and the increased depth of defensive areas of units and large units, by the presence of large gaps between battalions, regiments and divisions, and by exposed flanks. The enemy offensive along axes and his use of airborne landings demand quick actions by the defending troops in building up their efforts on the threatened axes, including the creation of various types of obstacles. In order to create obstacles in short periods of time during a battle and operation, it is essential that commanding officers of regiments, divisions, and armies have highly mobile and technically equipped obstacle detachments.

The next question that requires critical examination is the planning of fire and the organization of a system of fire in defense.

At the present time, troops are armed with a great variety of weapons having various combat characteristics. The larger the organizational - T/O & E military unit the greater the amount of various armaments that it has. Even rifle subunits have several types of armament that vary in construction, rapidity of fire, range of fire and in other combat characteristics, as well as in their intended use. In modern conditions the enemy represents the most heterogeneous targets: infantry, armored vehicles, various artillery systems, missile installations, control points, radio-technical stations, rear area objectives, various air targets, etc. These targets may be single or group, covered or exposed, and may be stationary or may move at various speeds. At a given time there may be few or many of them on the battlefield, and they will be located at various distances from one another but will operate in a coordinated manner according to a single plan.

The quick and effective destruction of all the targets which constitute the enemy by the fire from the various means is a rather complex matter and requires great art in the organization of fire. Modern fire means can only reveal their

qualities fully when they are used in an organized and purposeful manner and coordinated according to target, place and time.

The term "system of fire" is used in our military art quite often, but it has such a broad connotation that it is impossible to give it a clear-cut definition. It is not accidental that the Field Service Regulations do not give such a definition. They only state that "the system of fire in defense is built on the coordination of the fire of all types of weapons, atomic strikes and strikes by aviation".

As used in military literature and in troop training, the term "system of fire" likewise applies to the grouping of fire means and to the combining of the fire of types of weapons. It means the organized fire of all the fire means of this or that troop organism, and, therefore, we speak of a system of fire of subunits, units and large units. At the same time, this concept refers to the organized fire of artillery (system of artillery fire), the fire of antitank means (system of antitank fire), the fire of antiaircraft means, infantry weapons, etc.

The need has arisen to examine the concept of "system of fire" in defense and to answer the question of whether or not this system can ensure an organized and purposeful employment of various fire means in a modern defensive battle or operation.

As is known, the organized employment of fire in defense must serve the main goal -- to disrupt the enemy offensive which is being prepared, or which has begun, and to ensure the transition from the defensive to the offensive. In order to achieve this goal in modern defense, the following basic missions are assigned to fire: the destruction of nuclear weapons and other means of mass destruction as they are disclosed; the destruction or neutralization of enemy strike groupings in concentration areas, on lines of deployment, when moving out to the main

line of defense, and in departure areas for the offensive; the destruction of the enemy, who has passed over to the offensive, on the main line of resistance, and when he breaks through into the depth of the defense; the destruction of the air enemy who is at the approaches to the troops on defense, or overhead; and the destruction of airborne landings at the time they land and when they are dropped (debarked).

Besides these basic missions, fire is also assigned a series of individual missions that result from the concept for the defensive operations. If a support zone exists, fire must support the operations of the forward combat security detachments and cover engineer obstacles, unoccupied gaps in the combat formations of troops, open flanks and flank junctions (styk), breaches in the defense formed as a result of enemy nuclear strikes, etc.

To the question about whether the present understanding of "system of fire" satisfies modern requirements, it is necessary to reply in the negative. Since it is an attribute of positional defense on a continuous front, "system of fire" can no longer be the basis of organized fire in defense in which positional and maneuvering forms are combined, especially at the operational level. The organization of defense on a front which is not continuous, the conduct of a defensive battle and engagement on axes, broad maneuver by fire, forces and weapons, the irregular development of a battle along the front and depth and its rapidity of movement, and the diversity in types of troop armament, require both centralized and decentralized use of fire and broad initiative in all instances in the use of fire for the immediate destruction of disclosed targets. In order to carry out both centralized and decentralized use of fire and its control, it is first of all necessary to have clear-cut planning of fire at all levels from the division to the front and, secondly, to organize a system of fire for the types of weapons in subunits and units.

In the interests of defining the concept of "system

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of fire" and of working out a single opinion concerning this question, we propose to establish that: a) in defense, a system of fire is created by types of weapons - rifle, artillery, mortar, antitank; b) a system of fire of types of weapons as a composite part of the large unit fire plan is created only in subunits and units; c) a system of fire of types of weapons -- this is mainly the creation of a grouping of the fire weapons of the subunits and units and their disposition on the terrain in accordance with their combat characteristics for the continuous and effective destruction of the enemy during the entire battle.

In this way, the concept of "system of fire" in modern conditions will include only the organized fire of the types of weapons of subunits and units; therefore, we will have to speak, not of a system of fire in the defense as a whole, but of specific systems of fire of definite types of weapons and of their coordination on the scale of the subunits and units.

In modern defense, the planning of fire is the most important aspect of the decision for a battle and operation. Its meaning consists of making the most effective use of fire means and ammunition to deliver the greatest destruction on the advancing enemy at a time and place which are most advantageous for the defender.

When planning fire, it is necessary to proceed from the fact that in modern defense troops basically carry out three types of fire activities.

The first of these -- the immediate destruction of disclosed targets and objectives. This fire activity is carried out during the periods between massed fire strikes, on the initiative of both the enlisted man armed with a submachine gun or machine gun and of commanding officers of all grades who have at their disposal weapons, mortars, missile and artillery subunits, units and large units, and aviation. The immediate destruction of disclosed means of mass destruction, especially nuclear/missile means, has the

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greatest significance. To accomplish this, use must be made of any fire means capable of fulfilling this mission.

The second type of fire activity -- fire from all types of weapons brought up to the highest intensity, with the goal of disrupting the enemy tank and infantry attack. This fire activity is carried out on the initiative of the commanding officers of those troops against which the enemy has gone over to the attack.

Finally, the third type of fire activity consists of delivering massed fire strikes with the goal of disrupting the enemy offensive that is being prepared or that has started. These fire strikes are the most important and constituent part of the plan of a defensive operation and battle of large units. The basis of the fire strike is the use of nuclear weapons. If a fire strike is delivered in conditions of contact with the enemy, a necessary requirement will be the implementation of its results by an immediate strike by troops in order to complete the rout of the enemy grouping on a given axis.

The fire plan in an army defensive operation, or in a defensive battle of large units, may include:

-- fire missions to be carried out in an army operation or in a division battle, and such missions may be: the immediate destruction of disclosed means of mass destruction and other important targets and objectives of the enemy; the disruption of an enemy offensive that is being prepared by destroying groupings of his troops before they go over to the offensive; the disruption or weakening of the enemy's fire preparation and the destruction of his strike groupings on lines of deployment; the destruction of nuclear means and enemy groupings that have broken into the defense; the delivery of counterstrikes (carrying out counterattacks) by troops of the army (division);

-- the axes of concentrated fire efforts of the army (division) and selected areas of fire destruction on these

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axes; as has already been emphasized, areas of fire destruction are selected both in enemy dispositions over the entire range of the army (division) fire means and in one's own disposition over the entire depth of the defensive formation; the size of each area of fire destruction must be proportionate to the basic capabilities of the army (division) in order to ensure the reliable destruction of the selected enemy grouping;

-- the fire means brought in to fulfil fire missions on selected axes and in each area of fire destruction, and also the norms of ammunition expenditure for each type of weapon;

-- the sequence of employment of fire weapons and the basis for coordination among them when fulfilling each fire mission.

The fire plan is prepared by the headquarters of the army (division) on the basis of the decision for defense. First, the fire plan is brought to the attention of subordinates by the commanding officer personally when assigning combat missions for defense and when organizing coordination. The headquarters usually draws up the fire plan graphically on a map with a legend, as a supplement to the plan of the army operation or to the divisional commanding officer's combat order for defense. Commanding officers and staffs of the subunits, units and large units to be used in the direct fulfilment of fire missions detail the fire plan to the necessary degree and clarify specific missions for their fire means, basing it on the characteristic of the fire means and on the conditions of the situation.

The fire plan, like the decision for defense as a whole, is constantly elaborated upon, and, in the event of an abrupt change in the situation, it is changed.

The organization of fire in defense examined above permits the most effective use of all the various fire means, taking into consideration their combat characteristics

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and the combining and maneuvering of the fire of various types of weapons in the interests of a decisive concentration of efforts on important axes and in selected areas.

Without claiming completeness and absolute correctness in stating the questions touched upon in this article, our main goal was to call them to the attention of generals and officers in order to carry out, through common efforts, the Minister of Defense's task for finding new and the most expedient methods for organizing and conducting modern defense.